

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

**1.-30. (Canceled)**

**31. (Currently Amended)** A process for the formation of a phosphate-based glass ~~composites~~ composites, comprising:

providing a first phosphate-based glass having a first surface and a second phosphate-based glass having a second surface,

processing said first and second phosphate-based glass surfaces to provide a bonding surface,

providing a solution containing a phosphorous compound,

applying said phosphorus compound containing solution to at least one of said first and second phosphate-based glass surfaces,

placing said first surface into contact with said second surface, and

retaining said surfaces in contact until said surfaces are joined together while the ~~composite~~ solution cures.

**32. (Original)** A process as claimed in claim 31, further comprising heating the joined surfaces to a temperature below the glass transition temperature of the first or second phosphate-based glass surface.

**33. (Currently Amended)** A process as claimed in claim 31, wherein a vacuum is applied while the ~~composite~~ solution cures.

**34. (Original)** A process as claimed in claim 31, wherein the process is conducted at about room temperature.

**35. (Original)** A process as claimed in claim 31, wherein said step of processing said first and second phosphate-based glass surfaces comprises grinding or polishing.

**36. (Original)** A process as claimed in claim 35, wherein the resulting surface has a surface feature of less than 200 nm.

**37. (Original)** A process as claimed in claim 31, further comprising, after the step of processing, cleaning said first and second processed surfaces.

**38. (Original)** A process as claimed in claim 31, wherein pressure is applied to the phosphate-based glass surfaces.

**39. (Original)** A process as claimed in claim 31, wherein the temperature of the phosphate-based glass surface is gradually raised during the step of retaining.

**40.-46. (Canceled)**

**47. (Currently Amended)** A process of claim 31 wherein said solution consists essentially of water and a dissolved phosphorous compound therein.

**48. (New)** A process of claim 31 wherein the process results in an optically transparent joint between the first and second phosphate-based glass surfaces.